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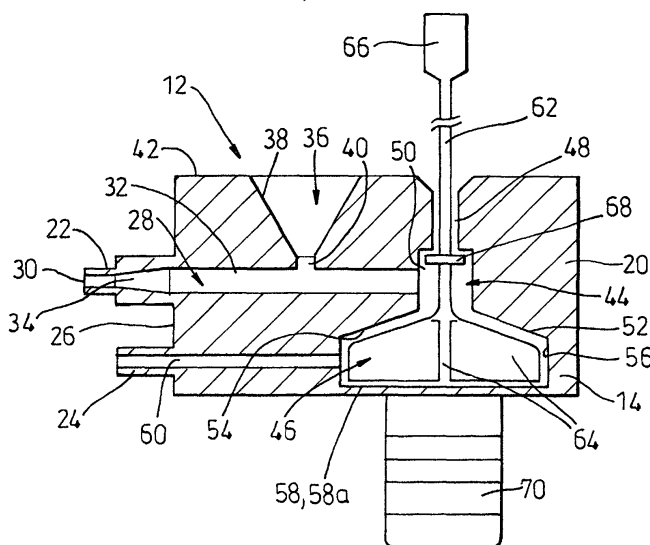
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(54) **Sample handling system**

(57) A particle suspension handling system comprises, a dispersion means (14), a transport means (46), a cell (18). The dispersion means (14) has a transducer (70) mounted externally of the dispersion means (14). The transducer (70) is arranged, in use, to transfer energy into the suspension. The transport means (46) is located within the dispersion means (14) and is arranged, in use, to recirculate the suspension about a

flow path including the dispersion means (14) the cell (18). The system (10) also includes an outlet means (16) including first and second valve members (84,86). In a first arrangement the valve members (84,86) are spaced apart such that a discharge opening from the system (10) is defined. In a second arrangement the members (84,86) abut and provide a flow path of substantially constant cross-section about the outlet means (16).



**Fig. 6**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 01 30 5623

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 5 428 443 A (KITAMURA HIROYUKI ET AL) 27 June 1995 (1995-06-27) * column 3, line 27-60 *	1	G01N1/38 B01F3/12 B01F11/02 G01N15/02
A	US 5 439 288 A (HOFFMAN JEFFREY G ET AL) 8 August 1995 (1995-08-08) * abstract; figure 1 *	1	
A	WO 00 16888 A (ULTRASONUS AB ;DAHLBERG HAAKAN (SE); NILSSON BO (SE)) 30 March 2000 (2000-03-30) * page 6, line 20 - page 8, line 15; figures 2,3 *	1	
A	PATENT ABSTRACTS OF JAPAN vol. 007, no. 285 (C-201), 20 December 1983 (1983-12-20) & JP 58 163425 A (TOKYO SHIBAURA DENKI KK), 28 September 1983 (1983-09-28) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B01F G01N
<del>The present search report has been drawn up for all claims</del>			
Place of search		Date of completion of the search	Examiner
THE HAGUE		24 January 2003	Zinngrebe, U
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03-82 (P04C01)



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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-8



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**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**1. Claims: 1-8**

**Recirculation system with external resuspension transducer**

**2. Claims: 9-21**

**Recirculation system with sampling valve**

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 30 5623

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-01-2003

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82